

Marshall, Vanessa

From: Bachman, Brenda
Sent: Tuesday, July 18, 2017 1:38 PM
To: Adams, Katie
Subject: RE: Question for Katie Adams

Katie, thank you so very much for this assessment/reflection! We will move forward with our assessment of the data as is.

Warmly, Brenda

From: Adams, Katie
Sent: Tuesday, July 18, 2017 1:36 PM
To: Bachman, Brenda
Subject: RE: Question for Katie Adams

Hi Brenda,

Unfortunately, I don't think the samples were switched. I'll step you through my evidence:

1. I've attached the pictures I took when dividing the samples into their parts A, B, and C. The beaker labelled "A" contains the small fragments from the outer shell, and the beaker labelled "C" contains the square piece that was excised with the dremel saw. I did not mix up the labelling of the beakers (if you look closely you can see "C" written on the tape of the "C" beaker).
2. The "A" fractions were digested all together, on a different day from the "B" and "C" fractions. At the end of the digestion, the tape from each beaker is transferred directly to the plastic bottle which stores the sample (one-at-a-time as the sample is transferred). It would not have been possible to mix up the tape labels, especially on different days of digestion.
3. The "A" fractions were also analyzed as separate batches from the "B" and "C" fractions. This was because the "A" fractions generally had smaller total sample mass, and therefore less calcium, and therefore less background interference to deal with. The "A" fractions lived on separate trays, and were never interspersed with the "B" and "C" fractions.
4. The amount of shell digested for the "A" fraction was approximately one third the amount of shell digested for the "C" fraction. One would therefore expect that the digestion solution for the "C" fraction would contain significantly more calcium than the digestion solution for the "A" fraction (even given that the different sections of shell might have different levels of calcification). This was the trend that was observed in the digestion solutions.

I hope this is helpful, even if the results do not fit as well into your trends. Let me know if you have any questions!

Katie Adams
Inorganic Chemistry Technical Lead,
Drinking Water Certification Officer
USEPA Region 10 Laboratory
7411 Beach Dr E
Port Orchard, WA 98366
360-871-8748

From: Bachman, Brenda
Sent: Tuesday, July 18, 2017 12:34 PM
To: Adams, Katie <Adams.Katie@epa.gov>
Subject: FW: Question for Katie Adams

From: Shephard, Burt
Sent: Tuesday, July 18, 2017 12:15 PM
To: Bachman, Brenda <bachman.brenda@epa.gov>
Subject: Question for Katie Adams

The question to ask Katie is in cell A10 of the attached spreadsheet, raw data for Al and Fe are in rows 2 – 8.

Best regards,

Burt Shephard
Risk Evaluation Unit
Office of Environmental Review and Assessment (OERA-095)
U.S. Environmental Protection Agency, Region 10
1200 6th Avenue
Seattle, WA 98101

Telephone: (206) 553-6359
Fax: (206) 553-0119

e-mail: Shephard.Burt@epa.gov

"Facts are stubborn things, but statistics are more pliable"
- Mark Twain